

Virginia Wireless E-911 Services Board

Guidelines for the Submission of Public Safety Answering Points (PSAP) Cost Estimates for the Fiscal Year beginning July 1, 2005 and ending June 30, 2006

Adopted July 21, 2004
Modified March 9, 2005

Purpose

The Virginia Wireless E-911 Services Board (the Board) has adopted these guidelines in accordance with Article 7, Chapter 15 of Title 56 of the *Code of Virginia*. The guidelines apply to public safety answering points (PSAP) and govern the submission of cost estimates for the fiscal year beginning on July 1, 2005 and ending June 30, 2006 (FY 2006).

Introduction

The FY2006 PSAP funding guidelines are generally a continuation of the guidelines used in previous years. The Board adopted three specific modifications to the guidelines on March 10, 2004. The modification adds the following items to allowable funding:

1. PSAP “makes busy circuits” or equivalent
2. Maintenance of CAD-based mapping systems at the wireless percentage
3. Voice logging recorder purchase and maintenance at the percentage of wireless channels to total channels of the recorder

Additionally, on March 9, 2005, the Board again modified the funding guidelines making the following changes to the funding guidelines:

1. Adding the cost of IT and GIS support personnel to the personnel calculation with a \$10,000 minimum funding level
2. Permitting each PSAP to claim one director or coordinator’s salary and benefits regardless of whether they have other responsibilities.

Letter of Intent

Prior to being eligible for any funding, the PSAP must file a letter of intent with the Board to implement Phase I or Phase II service. An official of the county or municipality operating the PSAP must sign the letter. The letter must state that the PSAP has or intends to request Phase I or Phase II service from all CMRS providers serving the PSAP service area, and the date on which the PSAP expects to implement such service. CMRS providers shall be copied on the letter of intent.

Guidelines for PSAP

General

Payments from the Fund, unless otherwise provided for in law, are limited under Article 7 to “direct” and “reasonable” costs associated with the provision of enhanced 911

services as defined under Federal Communications Commission Order 94-102. Funding is only available to a primary PSAP, defined as a PSAP, which receives a wireless 911 call directly from a CMRS provider. The PSAP must provide the Board with the number of total calls, total 911 calls and total wireless 911 calls that the PSAP projects will be received during FY2006. If a PSAP that does not have actual call counts on which to base a projection, the PSAP must submit evidence of the reasonableness of the projections.

Phase I

Equipment Dedicated to Wireless 9-1-1

The Board shall provide full (100%) funding for any equipment used solely for the processing of wireless E-911 calls. In Phase I, this equipment includes the following:

- ◆ Customer premise equipment (CPE) upgrades specifically for wireless E-911 (i.e. 20-digit upgrade).
- ◆ Trunk interface unit (TIU) cards for dedicated wireless trunks.
- ◆ Voice logging recorder expansion for dedicated wireless trunks.
Purchase and maintenance of voice logging equipment shall be funded at the percentage of wireless E-911 recorded channels to the total number of channels on the recorder (this includes channels not initially used).
- ◆ CAD system upgrades caused by wireless E-911 (i.e. ALI data stream format change to CAD interface).
- ◆ Since the Board requires call count reporting, the initial purchase of call accounting software if the PSAP does not already have such a system.

Shared Equipment

The Board shall provide proportional funding for any equipment that is shared between wireless E-911 calls and other types of calls. The formula for determining this proportion shall depend on the use of the piece of equipment. The proportion shall be determined by the dividing the number of wireless 9-1-1 calls by the total number of calls processed by the equipment. Consequently, equipment used only for 9-1-1 (wireline and wireless) shall be funded to the proportion of wireless 9-1-1 calls to total 9-1-1 calls. Equipment that processes all calls received by the PSAP shall be funded to the proportion of wireless 9-1-1 calls to total calls (9-1-1, administrative, etc.) received by the PSAP. If this proportion is less than the actual statewide percentage of wireless calls reported in the previous year's true-up process, then the proportion of eligible funding shall be increased to that minimum. **Since this percentage will not be calculated until mid-September of each year, a submission may be made before it is available and the amount will be automatically adjusted once the minimum is defined.**

The following list is of equipment typically (but not all inclusive) considered to be shared use:

- ◆ CPE purchase or replacement.
- ◆ CPE maintenance or lease.

- ◆ Call accounting software replacement, upgrade and maintenance.

The following list of equipment is specifically excluded from funding as shared equipment under Phase I:

- ◆ Radio system purchase, maintenance, etc.
- ◆ CAD system purchase, maintenance, etc. (though funding is available to PSAPs requesting Phase II service).
- ◆ PSAP building and furnishings.

Local Exchange Carrier (LEC) Costs

The Board shall provide full (100%) funding for any LEC costs required solely for the processing of wireless E-911 calls. In Phase I, these costs include the following:

- ◆ *“Make busy circuits” or functionally equivalent for redirecting wireless E-911 calls on dedicated trunks to another location. The request must be part of a larger program to redirect all 9-1-1 calls.*
- ◆ Dedicated wireless E-911 trunks (installation and monthly cost).

Personnel Costs

The Board shall provide funding for personnel costs to the proportion of wireless 9-1-1 calls to total calls (9-1-1, administrative, etc.) received by the PSAP. If the net amount of personnel funding is less than \$30,000, the amount of personnel shall be increased to the minimum of \$30,000.

The personnel costs of the PSAP may include the following:

- ◆ Salary and benefits of call takers and dispatchers (full and part time).
- ◆ Salary and benefits of the *one* PSAP director or coordinator *that manages the PSAP regardless of other duties.*
- ◆ Holiday or overtime compensation.
- ◆ Salary and benefits of training coordinators.
- ◆ Any other training costs incurred by the PSAP.

Additionally, personnel funding to the proportion of wireless calls to total calls is allowable for IT and GIS personnel. These personnel costs may include internal personnel or contract services. If this personnel supports other area outside the PSAP, a reasonable methodology must be used to apportion their personnel costs among the functions. If the net amount of IT/GIS support funding is less than \$10,000, this amount shall be increased to the minimum of \$10,000.

Specifically excluded from eligible personnel costs is any funding received from the Compensation Board. Only funding provided by the locality shall be used in the calculation of personnel costs.

The PSAP shall be eligible to recovery personnel costs six-months prior to the expected implementation date to allow sufficient time to hire and train new personnel, if necessary. For example, a PSAP, which expects to implement on March 31, 2006, may receive funding for personnel costs from October 1, 2005.

Phase II

Phase I Costs

After making a request for Phase II service, a PSAP shall still be eligible for all associated Phase I costs. The following guidelines for Phase II cost recovery should be viewed as being in addition to any Phase I costs already being received by the PSAP.

Mapping Data

The Board shall provide the mapping data needed for locating a wireless caller by longitude and latitude. Digital orthographic aerial photography have been provided to each locality through a statewide base mapping program run by the Virginia Geographical Information Network (VGIN). VGIN will also provide centerline and addressing data to each locality. This data, which is being created through an expansion of the base mapping program funded by the Board, will be available throughout 2004.

In addition to the creation of the data, the Board shall provide proportional funding for any PSAP personnel utilized for the creation or maintenance of mapping data. The salary and benefits of such personnel may simply be added to the personnel costs for Phase I. The Board shall also provide proportional funding for addressing equipment such as a GPS received used to locate buildings. The cost of this equipment may be considered with other shared equipment.

Mapping Display System

For Phase II, the Board has classified the initial purchase of a mapping display system in the PSAP to be "Equipment Dedicated to Wireless E-911", as outlined above. The PSAP may choose to implement the mapping display system as part of the CPE equipment, computer-aided dispatch (CAD) system, or as a separate stand-alone system. No matter which method is selected, the Board shall provide full (100%) funding for the implementation of the system if the PSAP does not already have a computerized mapping capability. If the PSAP already has a mapping capability through a CAD system, the Board shall provide full (100%) funding ("Equipment Dedicated to Wireless E-911") for an interface between the existing mapping system and the new wireless Phase II data.

PSAPs choosing to implement the mapping display system as part of a CAD system and the PSAP did not previously operate a CAD system shall not only be eligible for full (100%) funding of the mapping display component and interface for the new CAD system but shall also be eligible for proportional funding of remaining cost of the overall CAD system. Any funding received from other state or federal grants must be excluded from the remaining cost of the system.

The Board shall fund the replacement of mapping display systems as shared equipment, as outlined above. Regardless of whether the mapping display system is part of the CPE equipment, CAD system, or a stand-alone system the same proportional funding will be provided except that if the entire CAD system is also replaced, the PSAP shall be eligible for proportional funding of only the mapping display system and interface components. No funding shall be provided for the remaining cost of the CAD system.

The Board shall also fund the maintenance of the mapping display as shared equipment. *Since the overall CPE system maintenance and CPE-based mapping maintenance are both funded at the same level, the maintenance costs need not be separated. However, since the maintenance of the overall CAD system is NOT funded, the cost of the CAD-based mapping maintenance must be itemized separately. If this is not the way the costs were provided, please include your methodology for splitting the cost between the base system and mapping component.*

Another option the Board considered for the provision of a mapping display system was a service provider based system. The Board would also provide full (100%) funding for this type of system.

Funding Request Worksheet

Any PSAP intending to implement wireless enhanced 9-1-1 Phase I or Phase II is strongly encouraged to submit a funding request to the Board. The Wireless E-911 PSAP Funding Request Worksheet (attached) has been designed to simplify the process of applying for funding for wireless E-911 improvements. The worksheet supports both the application for grant funds prior to the beginning of a fiscal year and also is used for the “true-up” process at the close of the same fiscal year.

The Worksheet is composed of six separate areas that are compiled to complete the form. They consist of the following:

1. Header information
2. Call Load Data
3. Equipment dedicated to Wireless E-911
4. Shared Equipment
5. Local Exchange Carrier Costs
6. Personnel Costs

To the right of each area are two boxes, one titled “Estimated Cost” and one titled actual cost. Only the box titled “Estimated Costs” should be filled in for the grant application. The “Actual Cost” box is left blank until the true-up process (discussed below) at the completion of the fiscal year.

Items listed in each section should be itemized to allow the Board to fully understand the extent of the request. Items listed simply as “software” or “maintenance” will not be acceptable. Greater detail or explanation is necessary, such as “software upgrade to CPE to allow 20-digit processing” or “maintenance of CPE equipment”, to allow the Board to determine if the request falls within these guidelines.

Header Data

Under this section list the jurisdiction name and applicable fiscal year for which funds are requested. Also, after completing the rest of the worksheet, fill in the Total Funding Request at top right.

Call Load Data

Call Load Data should be filled in for both the “Last 12 Months” and the “Estimated” categories. The “Last 12 Months” column is to give the Board a measure of the reasonableness of the estimated counts. If this information is unavailable for the previous 12 months put “N/A” in the fields.

For the “Estimated” category, simply estimate how many calls your PSAP will answer during the fiscal year in which funds are requested. If prior data is not available on which to base a projection, the PSAP must attach to the worksheet an explanation of how the projection was developed. One method on developing a projection is to count calls manually for a period of 30 days and multiple that number by 12. A reasonable growth factor may also be applied to that extrapolated yearly figure. While this may not be perfectly accurate, it will suffice for the estimate process so long as the 30-day window is not unusually busy or slow. Call accounting software, fully funded by the Board, will take most of the guesswork out of this part of the worksheet.

The category of each type of call is as follows:

Total Telephone Calls

This should include all calls answered by the call takers and dispatchers in the PSAP. The total should include all 9-1-1 calls (wireline and wireless), all 7-digit dial numbers and any other administrative calls answered in the PSAP.

Total 911 Calls

This should include all 9-1-1 calls answered by the PSAP including both wireline and wireless.

Total Wireless Calls

This should include all wireless 9-1-1 calls answered by the PSAP. It does not include wireless 9-1-1 calls transferred to the PSAP by the State Police.

Equipment Dedicated to Wireless E-911

In this section, list any equipment dedicated to the processing of wireless E-911 calls, as defined above. Total the list of the equipment to the top of the section.

Shared equipment

In this section, list any shared equipment, as defined above. Determine the percentage of wireless calls to total calls by dividing the number of wireless calls by the total number of calls handled by the PSAP. If there is equipment that is only shared between wireless 9-1-1 and wireline 9-1-1, determine the percentage of wireless calls to all 9-1-1 calls by dividing the number of wireless calls by the total number of 9-1-1 calls. Total up the cost of the shared equipment separating items used for all calls from those used only for 9-1-1 (wireline and wireless). Multiple each total by the percentage of wireless call the

equipment handles or the minimum percentage, whichever is higher. This is the amount of recoverable funding for shared equipment.

Local Exchange Carrier (LEC) Costs

In this section, list any LEC costs, as defined above. Total the list to LEC costs to the top of the section.

Personnel Costs

In this section, list any personnel costs, as defined above. Please remember to exclude any compensation Board funding and itemize the list of costs so that the Board can determine the appropriateness of funding. Total the list to the formula below the table. Multiple the total by the percentage of wireless E-911 calls to total calls received by the PSAP or the minimum percentage, whichever is higher, and place this amount at the top of the section.

Submission Instructions

After completing the worksheet and totaling the costs to the top of the form, mail, fax or email it to the Board. No supporting material is required for the funding request unless the call count projection explanation is required (above).

The deadline for submission for the FY2006 period is October 1, 2004. However, this deadline is only significant if sufficient funding is not available to all requests. In such a case, the available funding is prorated among all of the requests received by October 1. By Virginia Code, the Board must consider funding requests received after October 1 to the extent practical.

Approval Process

The Board will review each request and approve the request in accordance with these guidelines. The Board may remove specific items before an approval is given. The Board will approve the funding requests by March 1, 2005 so that the localities will know their funding level prior to the approval of their local budgets.

Distribution of Funding

All payments based on the approved costs for FY 2006 shall be disbursed in four quarterly installments equal to one-quarter of the total amount approved by the Board.

True-up Process

Each PSAP filing a cost estimate and receiving payments during FY 2006 pursuant to these guidelines must file a statement of actual costs incurred during FY 2006 with the Board no later than September 1, 2006. Where appropriate, the PSAP must submit copies of paid invoices, purchase orders or other evidence of how the funding was expended. The actual equipment purchased may vary from that approved by the Board. So long as the actual equipment is still allowable under these guidelines, the Board may

provide funding. The Board does not true-up on an item by item basis but rather only compares the bottom line funding received versus the amount actually expended to implement wireless E-911.

Payments received in excess of the approved costs shall be refunded to the Board or credited to qualifying payments in subsequent years on such schedules as the Board may determine. Each PSAP participating in the FY 2006 program shall also be required to provide information on how actual call count volume varied from the information provided as part of the cost estimate. The Board strongly encourages each PSAP participating in the E-911 program to develop and maintain accurate and reliable information on total calls received, total 911 calls, and total wireless 911 calls received by the PSAP.

Amendment of these Guidelines

The Board reserves the right to adopt such amendments to these guidelines as may be necessary to implement Article 7. PSAP are strongly encouraged to suggest changes they feel may be appropriate to improve the implementation of Phase I and Phase II service.

Wireless E-911 PSAP Funding FY 2006 Request/Report Worksheet

PSAP: _____ **Total Request :** \$ _____

Date: _____ **Total Actual:** \$ _____

Difference: \$ _____

Call load data:

Description	Last 12 months	Estimated	Actual
Total telephone calls handled by PSAP			
Total 911 calls handled by PSAP			
Total wireless 911 calls handled by PSAP			

Equipment Dedicated to Wireless E-911:

Description	Estimated Cost	Actual Cost
Total Equipment Dedicated to Wireless E-911		

Shared Equipment:

Description	Estimated Cost	Actual Cost
Total Shared Equipment for Formula below		

Formula

$$\frac{\text{number of wireless 911 calls}}{\text{total number of calls handled by equipment}} \times \text{equipment cost} = \text{amount of funding}$$

Estimated

Actual

$$\text{_____} \times \text{_____} = \text{_____}$$

$$\text{_____} \times \text{_____} = \text{_____}$$

Local Exchange Carrier (LEC) Costs:

Description	Estimated Cost	Actual Cost
Total LEC Costs		

PSAP: _____

Personnel Costs:

Description	Estimated Cost	Actual Cost
Total Personnel Costs for Formula below		

Formula

$$\frac{\text{number of wireless 911 calls}}{\text{total number of telephone calls}} \times \text{personnel cost of call takers and dispatcher} = \text{amount of funding}$$

Estimated

Actual

_____	X	=	
-------	---	---	--

X	=	
---	---	--